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CHAMPVA POLICY MANUAL

CHAPTER: 2
SECTION: 30.13
TITLE: STEREOTACTIC RADIOSURGERY/RADIOTHERAPY

AUTHORITY: 38 CFR 17.270(a) and 17.272(a)

RELATED AUTHORITY: 32 CFR 199.4(a), (b)(2), (c)(2), and (c)(3)

I. EFFECTIVE DATE

- A. February 26, 1986, for proton beam radiosurgery/radiotherapy for arteriovenous malformations.
- B. March 1, 1988, for proton beam radiosurgery/radiotherapy for Cushing's disease or acromegaly caused by pituitary microadenoma.
- C. October 6, 1988, for gamma beam/gamma knife radiosurgery/radiotherapy for arteriovenous malformations, benign brain tumors, acoustic neuromas, pituitary adenomas, craniopharyngiomas, other tumors of the posterior fossa and pineal region tumors.
- D. January 1, 1990, for proton beam radiosurgery/radiotherapy for soft tissue sarcoma (liposarcoma).
- E. June 18, 1990, for proton beam radiosurgery/radiotherapy for chordomas or chondrosarcomas.
- F. January 1, 1994, for gamma knife and LINAC (Linear Accelerator) radiosurgery/radiotherapy for metastatic brain tumors.
- G. January 1, 1996, for proton beam radiosurgery/radiotherapy for uveal melanoma.
- H. January 1, 1996, for helium ion beam radiosurgery/radiotherapy for uveal melanoma and chordomas or chondrosarcomas.
- I. April 1, 1996, for LINAC radiosurgery/radiotherapy for arteriovenous malformations and acoustic neuromas.
- J. April 26, 1996, for proton beam radiosurgery/radiotherapy for prostate cancer.

K. October 1, 1997, for gamma knife radiosurgery/radiotherapy for high-grade gliomas, glioblastoma multiformed, anaplastic astrocytomas.

L. January 1, 1998, for extracranial stereotactic radiosurgery/radiotherapy for lung carcinoma.

M. The date of FDA approval for frameless stereotaxy (date varies depending on the device).

N. June 10, 2004, for Cyberknife® System for stereotactic radiosurgery/radiotherapy when intended to provide treatment planning and image-guided stereotactic radiosurgery and precision radiotherapy.

II. PROCEDURE CODE(S)

61793, 61795, and 77261-77799

III. DESCRIPTION

A. Stereotactic radiosurgery/radiotherapy is a method of delivering high doses of radiation to small intracranial targets. The high dosage achievable with radiosurgery minimizes the amount of radiation that is delivered outside the tumor target. As a result, it is possible to deliver a much larger and presumably a more desirable effect to the tumor without exceeding the radiation level tolerance of normal tissue. Stereotactic radiotherapy normally entails delivery of high-dose radiation to the patient over a physician-determined number of treatments.

B. Four main variations of stereotactic surgery exist: Gamma beam radiosurgery or gamma knife, LINAC (Linear Accelerator) charged particle beam (proton or helium ion), and Cyberknife® System. The four radiation delivery devices differ technically in several ways: source of radiation, size and shape of the radiation field, and range of radiation dosages.

C. The radiosurgical/radiotherapy procedure is preceded by a process of localizing the target, which can be performed with one or more of the following techniques: skull x-ray, cerebral angiography, computerized tomography, or magnetic resonance imaging.

IV. POLICY

A. Gamma knife radiosurgery/radiotherapy that can be documented as medically necessary, appropriate, and the standard of medical care, may be considered for cost sharing for the following indications. (The list is not all-inclusive.)

1. Arteriovenous malformations (affecting an artery or vein)
2. Benign (nonmalignant) brain tumors)

3. **A**coustic neuromas (a progressively enlarging, benign tumor within the auditory canal; may include hearing loss, headache, disturbances in balance or gait, facial numbness or pain)

4. **P**ituitary adenomas

5. **C**raniopharyngioma (a tumor associated with intracranial pressure)

6. **O**ther tumors of the skull base

7. **P**ineal region tumors (pine cone shaped)

8. **M**etastatic (disease is capable of transferring to other parts of the brain or other organs) brain tumors

9. **H**igh-grade glioma (tumor, glioblastoma multiforme, anaplastic astrocytomas)

B. LINAC radiosurgery/radiotherapy may be considered for cost sharing for the following indications. (The list is not all-inclusive.)

1. **A**rteriovenous malformations

2. **A**coustic neuromas

3. **M**etastatic brain tumors

C. Proton beam radiosurgery/radiotherapy may be considered for cost sharing for the following indications: Proton beam radiosurgery/ radiotherapy is covered for other conditions when medically necessary and appropriate and when conventional radiotherapy is contraindicated. (The list is not all-inclusive.)

1. **A**rteriovenous malformations

2. Cushing's disease or acromegaly caused by pituitary microadenomas

3. **A**s postoperative therapy in patients who have undergone biopsy or partial resection of the chordoma or low-grade (I or II) chondrosarcoma of the basisphenoid region (skull-base malignant tumor) or cervical spine [January 1, 1996]

4. **A**s primary therapy for patients with uveal melanoma, with no evidence of metastasis or extrascleral extension, and with tumors up to 22-mm in largest in diameter and 14-mm in height

5. **P**rostate cancer

6. **M**eningioma (a hard, slow-growing, usually vascular tumor that causes eroding and thinning of the skull)

7. Low-grade glioma (a tumor composed of astrocytes, grade I - II)
 8. Glioblastoma multiforme
 9. Soft tissue sarcoma (liposarcoma)
 10. Hodgkin's disease
 11. Acoustic neuromas
 12. Juvenile nasopharyngeal angiofibroma when provided as adjuvant therapy after failure of surgery or for extensive intracranial extension
- D. Helium ion beam radiosurgery/radiotherapy may be considered for cost sharing for the following indications.
1. As primary therapy for patients with melanoma of the uveal tract, with no evidence of metastasis or extrascleral extension and with tumors up to 24-mm in largest diameter and 14-mm in height.
 2. As postoperative therapy in patients who have undergone biopsy or partial resection of the chordoma or low-grade (I or II) chondrosarcoma of the basisphenoid region (skull-base chordoma or chondrosarcoma) or cervical spine.
- E. Extracranial stereotactic radiosurgery/radiotherapy is covered for primary and metastatic lung carcinoma.
- F. Frameless stereotaxy (neuronavigation) is covered for the following indications. (This list is not all-inclusive.) Those indications for which this procedure can be documented as medically necessary, appropriate, and the standard of medical care may also be covered:
1. Localization, surgical planning and guidance for intracranial tumors, skull base tumors, metastatic brain tumors, AVMs, cavernomas, chordomas, and pituitary adenomas.
 2. Biopsy guidance
 3. Cerebrospinal fluid shunt placement
 4. Surgery for intractable epilepsy
 5. Spinal surgery
- G. The frameless stereotaxy device must be FDA-approved. The following devices are FDA-approved: Stealth Station System, The Operating Arm, ISG Viewing Wand, MKM System, and Philips Easyguide. Other systems that are FDA-approved are also covered.

H. Cyberknife® System is indicated for treatment planning and image guided stereotactic radiosurgery and precision radiotherapy for the following. (The list is not all-inclusive.)

1. Lesions.
2. Tumors.
3. Conditions anywhere in the body when radiation treatment is indicated.

V. EXCLUSIONS

A. Proton radiosurgery for ependymoma (cancerous cells that are normally slow growing and benign; malignant varieties do occur).

B. Helium ion beam radiosurgery/radiotherapy for the following indications:

1. Arteriovenous malformations
2. Ependymoma

C. Linear accelerator stereotactic radiosurgery is considered unproven and not covered for the following indications: [38 CFR 17.272(a)(14)]

1. Meningiomas
2. Gliomas
3. Craniopharyngiomas

END OF POLICY